

## SHORTER NOTES

THE CUBAN COLUMNEAS. — The mountains of eastern Cuba contain two species of this genus of Gesneriaceae. *Columnnea tineta* Griseb., based on Wright's no. 358, collected on tree-trunks in the forest near Monteverde is a climbing vine with a bright-red calyx and yellow corolla; it was found also by Baron Eggers near Pinal de Santa Ana (no. 5050), also by Linden on Mt. Liban near Santiago (no. 1962), and on El Yunque mountain near Baracoa by Pollard & Palmer (no. 171) and by Underwood & Earle (no. 1013).

*Columnnea cubensis* (Urban) Britton (*C. sanguinea* var. *cubensis* Urban, Symb. Ant. 2: 359; *Collandra sanguinea* Griseb., not *Besleria sanguinea* Pers.), based on Wright's no. 357 from eastern Cuba, is also a vine growing on trees, as observed by Professors Underwood and Earle in collecting their no. 869 at Cooper's Ranch, base of El Yunque; it was also found by Baron Eggers on the Pinal de Santa Ana (no. 5049). A comparison of the specimen collected by Underwood & Earle with the Haitian *Columnnea sanguinea* (Pers.) Hanst., as illustrated by Nash & Taylor, no. 1167, from Mount Maleuvre, shows that the Cuban plant is distinct. I am indebted to Dr. B. L. Robinson for an examination of Wright's specimen.

N. L. BRITTON.

✓ *ASTRAGALUS LOTIFLORUS NEBRASKENSIS*.\* — It is a curious fact that the plant described in the *American Naturalist* by me in 1895 should not have been reported by any one since. I have been studying it continuously and have found it since then in four towns and three additional counties of Nebraska: Ainsworth, nine miles from the original find; Callaway, Custer County, eighty to ninety miles south, where it was fairly abundant; Red Cloud, Webster County, three large plants, one hundred miles southeast of Callaway; and in two towns and counties west of Red Cloud, viz.: Naponee, two or three large plants; and Orleans, one plant. In the northern station, *A. lotiflorus* was very common in both forms, the long-peduncled and

\* Bates, Am. Nat. 29: 670. 1895.

the short. In this southern station, *A. lotiflorus* has not been found in three years of collecting. As my plant seeds lavishly here, its scarcity cannot be easily accounted for. The Red Cloud plants have all been heavily affected with *Astragalus-rust* (*Uromyces Astragali*), but the seeds have matured well, at least five hundred on one plant. These southern plants vary in no particular from the original find, except that they average larger, the largest spreading two feet in diameter.

As the result of these studies, and of the use of the term "species" in modern literature, it has seemed best to give the plant specific rank. I am utterly opposed to the subdivision that has characterized *Crataegus* and some other genera of late. But the more I see of this form, the less it resembles *A. lotiflorus*. That is very variable. This is invariable. The resemblance lies in size and color of the flower. If I had found it first here, with its plants of noble size and unassociated with *A. lotiflorus*, I can see that I should not have thought of it as a variety, but as a congener.

It is accordingly now published as ***Astragalus nebraskensis*** Bates. The name seems most appropriate, and the original description holds good in every particular but the size.

J. M. BATES.

RED CLOUD, NEBRASKA.

A CURIOUS CACTUS FRUIT. — One day early in August an odd looking "joint" of a prickly pear cactus (*Opuntia Engelmannii*) was observed on a plant not far from the laboratory building. It was somewhat smaller than the other joints of the year; like them it was spinose, but instead of being green over the whole surface a portion of it was dark-red. Upon closer inspection the red portion was seen to be somewhat thicker than the remainder and bore a flower scar on its tip. A longitudinal section of the joint showed the red part to be fruit with a red fleshy outer portion and many seeds. The following measurements were taken: Length of joint, 8 cm.; width, 5 cm.; length of the fruiting portion, 3.4 cm.; width, 2.5 cm. A normal fruit from a neighboring plant of the same sort measured in length 4.5 cm., and in width 3.5 cm.

This is the only monstrosity of its kind on this species which has come to my notice. It is of interest to note the resemblance of fruit and joint in such cylindrical opuntias as the cholla (*O. fulgida*), in which there occurs normally and year after year a budding-out from fruits in manner apparently quite like the branching of the joints of the plant. As a consequence of this proliferation and where undisturbed the fruits of cholla are very numerous, forming large clusters. In other opuntias also the fruits bear both spines and prickles and in this habit they recall the purely vegetative part of the plant. Whether, however, the peculiar fruit of the prickly pear above described is to be considered as indicating a caulomic tendency as exhibited by cholla and in other ways by other opuntias might be questioned.\*

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## REVIEWS

### Christensen's Index Filicum†

The lack of a satisfactory index to the species of ferns has been one of the greatest drawbacks to the systematic study of this group of plants. Moore's attempt‡ in the early sixties proved unsatisfactory and incomplete, since the printing ceased before the genera commencing with the letter G were completed. The parts that were published are not sufficiently exact for present day citation, since dates of publication were rarely given. Salomon's Nomenclator§ was carried through the alphabet but was incomplete at best and gave no citations whatever, thus proving a scarcely useful list of mere names. The need of a thorough index has been so much the more keen (1) since

\* Compare also the sketch of *Opuntia Ficus-indica* in Engler & Prantl's Die Natürlichen Pflanzenfamilien, 3<sup>6a</sup>: 170, in which the fruit is shown sending out roots and new shoots quite like the joints of the plant.

† Christensen, C. Index Filicum, sive enumeratio omnium generum specierumque Filicum et Hydropteridum ab anno 1753 ad annum 1905 descriptorum adjectis synonymis principalibus, area geographica, etc. Hafniae 1905 apud H. Hagerup. [Price 3s. 6d. per fascicle.]

‡ Moore, T. Index Filicum. London, 1857-1863.

§ Salomon, C. Nomenclator der Gefässkryptogamen. Leipzig, 1883.